

REMARKS

The Examiner is thanked for the careful examination of the application. However, in view of the foregoing amendments and the remarks that follow, the Examiner is respectfully requested to reconsider and withdraw the outstanding rejections.

Election:

The Examiner is thanked for rejoining claims 22 and 24-26. However, Applicants continue to traverse the restriction of claims 1-13, 21, and 23. Specifically, the Examiner has merely identified a structural difference between the two groups of claims, i.e., that the Group I claims recite a dielectric annular member. However, the mere inclusion of a claim element in one group that is not found in another group falls far short of the requirement for an Election of Species or Restriction. Specifically, §803 of the Manual of Patenting Examining Procedures requires that the two groups are properly restricted only if they are either independent or distinct. A discussion of the meaning of independent and distinct may be found in §802.01 of the Manual of Patenting Examining Procedures. Independent requires that there is no disclosed relationship between the two or more subjects disclosed, that is, they are unconnected in design, operation, or effect. Distinct requires that the two or more subjects are patentable over each other. The burden for showing reasons for the restriction is on the Examiner, and the Examiner has failed to show anything more than the claims of Group I includes an element that is not found in Group II. In order to maintain the restriction, the Examiner must set forth reasons why the Group I claims are either

distinct or independent from the Group II claims. The Examiner merely concludes that the Group I are distinct from claim 14. Is it the Examiner's position that the inclusion of the dielectric ring in claim 1 renders that claim patentable over the Group II claims?

Drawings:

The Examiner continues to require that Figures 10 and 11 should be designated by a legend such as prior art. In a telephone conversation with the Examiner on August 21, 2003, Applicants attorney explained that certain structure may be "conventional", but not necessarily prior art. Specifically, if structure was sold in a country outside of the United States, such structure may be conventional, but not prior art since 35 U.S.C. §102 requires the sale to be in the United States. Also, the one year grace period set forth in §102(b) may also provide an opportunity when structure may be conventional and not prior art. Accordingly, since Applicants are not aware of any specific evidence that the subject matter of Figures 10 and 11 are in fact prior art as defined in 35 U.S.C. §102, Applicants continue to traverse the requirement of labeling such Figures as prior art.

Claim Objections:

In paragraph 5 on page 4 of the Official Action, the Examiner requested that one of the groups of 18-20 and 24-26 be canceled since they are substantial duplicates. However, during the telephone conversation on August 21, 2003, Applicants attorney advised the Examiner that the claims are in fact different in that one set of claims uses the term

"about", whereas the other set does not. This term provides a difference in the scope of the claims. Accordingly, Applicants traverse the requirement to delete one of the two groups of claims.

Claim Rejections - 35 U.S.C. §112:

In response to the rejection of claims 28 under 35 U.S.C. §112, first paragraph, claim 28 has been amended as suggested by the Examiner. Similar amendments have also been made to claim 23.

Art Rejections:

Claims 14-16 have been rejected under 35 U.S.C. §102(b) as being allegedly anticipated by U.S. Patent No. 4,662,122, hereinafter Landau. Landau discloses a planar magnetron cathode target assembly which includes a target material 28 on a cathode 6. Landau discloses an anode assembly 32 secured to the dielectric shroud 22 in a surrounding, but spaced relationship to the target 28. According to Figure 1, there is a substantially flat, planar gap extending between the anode assembly 32 and the target 28.

To more clearly distinguish claim 14 from Landau, the claim has been amended to indicate that the gap formed by the metal plate between the cathode and the target includes a bend between a first portion which is between the metal plate and the cathode and a second portion, which is between the metal plate and the target. As a result, the gap is substantially L-shaped.

With regard to the significance of the bend or L-shape, the Examiner's attention is directed to paragraph 12 of the present application, wherein it is explained that the bend of the gap prevents sputter particles from penetrating the interior of the gap from the mouth of the gap. The sputter particles cannot extend through the bend of the gap because they travel in a straight line.

Accordingly, claim 14 is clearly patentable over Landau.

Claims 15 and 16 depend from claim 14, and are thus also patentable over Landau at least for the reasons set forth above with respect to claim 14..

Claims 14 and 16 have been rejected under 35 U.S.C. §102(b) as being anticipated by JP 53-008377, hereinafter JP '377.

In the description of the JP '377, the Examiner alleges that element 26, which is illustrated in Figures 6 and 7, is a "metal plate". However, Applicants' attorney has been advised that element 26 is a plate made from quartz, and is therefore not conductive, and is completely different from a metal plate. Accordingly, Applicants submit that the embodiments of JP '377 illustrated in Figures 6 and 7 do not teach or suggest the subject matter of claim 14.

Although a translation of JP 53-008377 is not available to Applicants' attorney, Applicants' attorney has been advised that plate 21 illustrated in the prior art of JP 53-008377 is conductive. However, it does not appear that such embodiments disclose a gap having the two portions and L-shaped bend therein defined by the metal plate between the cathode and the target, *as defined in claim 14*. Such structure prevents particles from

entering the gap and traveling to the end thereof, and is thus quite different from the applied prior art.

Accordingly, claim 14 and dependent claim 16, which depends therefrom, are not anticipated by JP '377.

Claims 18 and 24 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Landau in view of the admitted prior art of the instant application or U.S. Patent No. 4,401,546, hereinafter Nakamura. However, in Nakamura, the anode 19 exists in the same axial extent of the processing chamber as the cathode. Accordingly, Nakamura also does not teach or suggest the present invention.

Claim 17 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Landau in view of JP 57-194254, hereinafter JP '254. However, the Examiner relies upon JP '254 only for its teaching of using a shield of the same material as the target. This feature does not overcome the deficiency of Landau discussed above. Accordingly, claim 17 is also patentable because claim 17 depends from claim 14.

Claim 17 has also been rejected under 35 U.S.C. §103(a) as being unpatentable over JP '377 in view of JP '254. However, the same reasoning applies. JP '254 does not overcome the deficiency of JP '377 with regard to the independent claim 14. Accordingly, claim 17 is also patentable over the cited prior art.

Claims 18 and 24 have been rejected under 35 U.S.C. §103(a) as being unpatentable over JP '377 in view of the admitted prior art or Nakamura. However, as set

forth above, Nakamura does not overcome the deficiency of the rejection based on JP '377. Accordingly, claims 18 and 24 are also patentable over the cited prior art.

Claims 19, 20, 22, and 25-28 have been rejected under 35 U.S.C. §103(a) as being unpatentable over JP '377 in view of the admitted prior art of record or Nakamura, as applied to claims 14 and 18 above, and further in view of JP '873. The reference to JP '873 is presumed to relate to JP 9-87837, hereinafter JP '837.

However, JP '837 does not overcome the deficiency of the rejection of claim 14 based on JP '377 and Nakamura. Accordingly, claims 19, 20, 22, and 25-28 are also patentable over the cited prior art.

New Claims:

New claims 29-30 have been added to further define the protection to which Applicants are entitled. The new claims further define the gap and depend from claim 14. Accordingly, they are patentable at least for the reasons set forth above with respect to claim 14.

In view of the foregoing amendments and remarks, the Examiner is respectfully requested to reconsider and withdraw the outstanding election requirement, the objections, and the objections to the claims.

In the event that there are any questions concerning this response, or the application in general, the Examiner is respectfully urged to telephone the undersigned attorney so that prosecution of the application may be expedited.

Respectfully submitted,

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